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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/043,812

01/10/2002

Satoshi Seo

07977-292001-US5444

7853

26171

7590

09/22/2006

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EXAMINER

PATEL, ASHOK

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,812

Applicant(s)

SEO ET AL.

Examiner

Ashok Patel

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 60-80 is/are pending in the application.
- 4a) Of the above claim(s) 56-59 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61-64 and 73-76 is/are allowed.
- 6) ☒ Claim(s) 1-3, 60, 65-72 and 77-80 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

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1. Indicated allowability of claims is withdrawn in view of newly discovered prior art reference to Kwong et al.

As to claims 1, 65, 69, and 77, Kwong et al disclose applicant's claimed light emitting device including: an organic light emitting element (Figures 2, 3) including: an anode (211, 311); a cathode (215, 315); and an organic compound film (a multilayered structure 314-312) sandwiched between the anode and the cathode,

wherein the organic compound film includes

a blocking compound (314) and at least one compound (within the layers 212, 214, HIL, ETM) satisfying applicant's claimed Markush grouping of:

a hole injecting compound; a hole transporting compound;
an electron transporting compound having electron mobility larger than hole mobility;

wherein the organic compound film includes a region in which the two compounds blocking compound and the at least one selected compound are mixed (as disclosed at least at col. 7, second paragraph).

As to applicant's claimed limitations "wherein the blocking compound and the at least one compound selected are materials capable of undergoing vacuum evaporation" and "wherein the electric

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current versus electric voltage property of the organic light emitting elements show a rectification property", these limitation are narrative in form and do not contribute toward positive structure of the claimed device. Therefore these two narrative limitations are not afforded any patentable weight.

As to claims 2, 3, 66, 67, 74, 75, 78 and 79, Kwong et al disclose the blocking compound at the at least one compound being hosts and guest (a light emitting compound).

As to claims 60, 68, 72, and 80, the limitation that the light emitting device is included with different electrical equipments has not been given patentable weight because the claimed electrical equipments are considered intended use recitations. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The recitations of the intended use of claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it means the claim, *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

As to claim 69, last line: the limitation "wherein a concentration change in the region is continuous" is narrative in form and does not constitute the positive structure of the claimed device. It remains unclear as to what the claimed "concentration change" the claim refers to. Is it the concentration of emitted light or filtered light or is it any particular compound or layer thickness? In light of this the Examiner does not give a patentable weight to the claimed limitation "wherein a concentration change in the region is continuous".

2. Claims 61-64 and 73-76 are in the condition for allowance, as mentioned in the previous office action. Prior art of the record does not disclose applicant's claimed light emitting device including a light emitting element including an anode, a cathode and an organic compound film including: a hole injecting compound that receives holes from the anode; and a hole transporting compound that has a hole mobility that is larger than its electron mobility, wherein the organic compound film includes a region in which the hole injecting compound and the hole transporting compound are mixed, and wherein a concentration of the hole injection compound decreases continuously from the anode to the cathode.


3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beierlein et al is cited for showing a general structure of an organic EL device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ashok Patel
Primary Examiner
Art Unit 2879